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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/417,522	10/13/99	NEHLS	M 8535-027-999

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MORAN,M	
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1631	11

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

1- File Copy

PTO 90C (Rev 2/95)

Office Action Summary

Application No.	Applicant(s)
09/417,522	Nehls et al.
Examiner	**Group Art Unit**
Marjorie Moran	1631

X Responsive to communication(s) filed on *Aug 2, 2000*.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *three* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

X Claim(s) *1-9* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

X Claim(s) *1-9* is/are rejected.

X Claim(s) *5* is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

X See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

X Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

X Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

X Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Election/Restriction

Applicant's election of SEQ ID NO's 9-18 in Paper No. 8, filed 8/2/00, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Objections

Claim 5 is objected to because of the following informalities: The term "GTS" in line 3 is defined in the specification on page 2, but is not defined in the claims. For clarity, the examiner suggests that the full term --gene trapped sequences-- be recited at least once in the claims.

35 U.S.C. 101/112 Utility Rejections

35 U.S.C. 101 reads as follows:

> "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

Nonstatutory

Claim 1 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The oligonucleotide recited in the claim appears to an unaltered product of nature, and as such, is not a "manufacture". See MPEP 706.03(a).

Utility

Definitions: [from REVISED INTERIM UTILITY GUIDELINES TRAINING MATERIALS; repeated from http://www.uspto.gov/web/menu/utility.pdf]

"Credible Utility" - Where an applicant has specifically asserted that an invention has a particular utility, that assertion cannot simply be dismissed by Office personnel as being "wrong". Rather, Office personnel must determine if the assertion of utility is credible (i.e., whether the assertion of utility is believable to a person of ordinary skill in the art based on the totality of evidence and reasoning provided). An assertion is credible unless (A) the logic underlying the assertion is seriously flawed, or (B) the facts upon which the assertion is based is inconsistent with the logic underlying the assertion. Credibility as used in this context refers to the reliability of the statement based on the logic and facts that are offered by the applicant to support the assertion of utility. A *credible* utility is assessed from the standpoint of whether a person of ordinary skill in the art would accept that the recited or disclosed invention is currently available for such use. For example, no perpetual motion machines would be considered to be currently available. However, nucleic acids could be used as probes, chromosome markers, or forensic or diagnostic markers. Therefore, the credibility of such an assertion would not be questioned, although such a use might fail the *specific* and *substantial* tests (see below).

"Specific Utility" - A utility that is *specific* to the subject matter claimed. This contrasts with a *general* utility that would be applicable to the broad class of the invention. For example, a claim to a polynucleotide whose use is disclosed simply as a "gene probe" or "chromosome marker" would not be considered to be *specific* in the absence of a disclosure of a specific DNA target. Similarly, a general statement of diagnostic utility, such as diagnosing an unspecified disease, would ordinarily be insufficient absent a disclosure of what condition can be diagnosed.

"Substantial utility" - a utility that defines a "real world" use. Utilities that require or constitute carrying out further research to identify or reasonably confirm a "real world" context of use are not substantial utilities. For example, both a therapeutic method of treating a known or newly discovered disease and an assay method for identifying compounds that themselves have a "substantial utility" define a "real world" context of use. An assay that measures the presence of a material which has a stated correlation to a predisposition to the onset of a particular disease condition would also define a "real world" context of use in identifying potential candidates for preventive measures or further monitoring. On the other hand, the following are examples of situations that

require or constitute carrying out further research to identify or reasonably confirm a "real world" context of use and, therefore, do not define "substantial utilities":

A. Basic research such as studying the properties of the claimed product itself or the mechanisms in which the material is involved.

B. A method of treating an unspecified disease or condition. (Note, this is in contrast to the general rule that treatments of specific diseases or conditions meet the criteria of 35 U.S.C. 101.)

C. A Method of assaying for or identifying a material that itself has no "specific and/or substantial utility".

D. A method of making a material that itself has no specific, substantial, and credible utility.

E. A claim to an intermediate product for use in making a final product that has no specific, substantial, and credible utility.

Note that "throw away" utilities do not meet the tests for a *specific* or *substantial* utility. For example, using transgenic mice as snake food is a utility that is neither specific (all mice could function as snake food) nor substantial (using a mouse costing tens of thousands of dollars to produce as snake food is not a "real world" context of use). Similarly, use of any protein as an animal food supplement or a shampoo ingredient are "throw away" utilities that would not pass muster as specific or substantial utilities under 35 U.S.C. ' 101. This analysis should, or course, be tempered by consideration of the context and nature of the invention. For example, it a transgenic mouse was generated with the specific provision of an enhanced nutrient profile, and disclosed for use as an animal food, then the test for specific and substantial *asserted* utility would be considered to be met.

"Well established utility" - a specific, substantial, and credible utility which is well known, immediately apparent, or implied by the specification's disclosure of the properties of a material, alone or taken with the knowledge of one skilled in the art. "Well established utility" does not encompass any "throw away" utility that one can dream up for an invention or a nonspecific utility that would apply to virtually every member of a general class of materials, such as proteins or DNA. If this is the case, any product or apparatus, including perpetual motion machines, would have a "well established utility" as landfill, an amusement device, a toy, or a paper weight; any carbon containing molecule would have a "well established utility" as a fuel since it can be burned; any protein would have well established utility as a protein supplement for animal food. This is not the intention of the statute.

See also the MPEP at 2107 - 2107.02.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim(s) 1-4 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility due to its not being supported by either specific and/or substantial utility or a well established utility.

The claimed nucleic acids are not supported by a specific asserted utility because the disclosed use(s) of the nucleic acids is(are) not specific and is(are) generally applicable to any nucleic acid. The specification states that the nucleic acid compounds may be useful in methods to analyze biopolymer sequences, as hybridization probes, and for screening libraries. These are non-specific uses that are applicable to nucleic acid(s) in general and not particular or specific to the nucleic acid(s) being claimed.

Further, the claimed nucleic acid compound(s) is(are) not supported by a substantial utility because no substantial utility has been established for the claimed subject matter. For example, a nucleic acid may be utilized to make a library. The library could then be used in methods to screen for other nucleic acids or genes, which would then be further characterized. The need for such research (further characterization) clearly indicates that the library or screening, in itself, is not disclosed as to a currently available or substantial utility. The research contemplated by applicant(s) to characterize nucleic acids does not constitute a specific and substantial utility. Identifying and studying the properties of a nucleic acid or library does not define a "real world" context or use. Similarly, the other listed and asserted utilities as summarized above or in the instant specification are neither substantial nor specific due to being generic in nature and applicable to a myriad of such compounds. Note, because the claimed invention is not supported by a specific and substantial asserted utility for the reasons set forth

above, credibility has not been assessed. Neither the specification as filed nor any art of record discloses or suggests any property or activity for the nucleic acid compound(s) such that another non-asserted utility would be well established for the compounds.

Claim(s) 1-4 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art would not know how to use the claimed invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 3-4 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a WRITTEN DESCRIPTION rejection.

The specification discloses SEQ ID NO's 9-18 which correspond to cDNA/genomic DNA. However, claims 1 and 3-4 are directed to encompass any oligonucleotide or polynucleotide, wherein the claimed sequences may encompass gene sequences. These sequences do not meet the written description provision of 35 USC 112, first paragraph. The specification provides insufficient written description to support the genus encompassed by the claim.

Vas-Cath Inc. v. Mahurkar, 19 USPQ2d 1111, makes clear that "applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession *of the invention.* The invention is, for purposes of the 'written description' inquiry, *whatever is now claimed.*" (See page 1117.) The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (See Vas-Cath at page 1116.)

The skilled artisan cannot envision the detailed chemical structure of the encompassed polynucleotides and/or proteins, regardless of the complexity or simplicity of the method of isolation. Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it. The nucleic acid itself is required. See Fiers v. Revel, 25 USPQ2d 1601, 1606 (CAFC 1993) and Amgen Inc. V. Chugai Pharmacentical Co. Ltd., 18 USPQ2d 1016. In Fiddes v. Baird, 30 USPQ2d 1481, 1483, claims directed to mammalian FGF's were found unpatentable due to lack of written description for the broad class. The specification provided only the bovine sequence.

Finally, University of California v. Eli Lilly and Co., 43 USPQ2d 1398, 1404, 1405 held that:

> ...To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that "the inventor invented the claimed invention." *Lockwood v. American Airlines, Inc.* , 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (1997); *In re Gosteli* , 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) (" [T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed."). Thus, an applicant

complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention." *Lockwood* , 107 F.3d at 1572, 41 USPQ2d at 1966.

An adequate written description of a DNA, such as the cDNA of the recombinant plasmids and microorganisms of the '525 patent, "requires a precise definition, such as by structure, formula, chemical name, or physical properties," not a mere wish or plan for obtaining the claimed chemical invention. *Fiers v. Revel* , 984 F.2d 1164, 1171, 25 USPQ2d 1601, 1606 (Fed. Cir. 1993). Accordingly, "an adequate written description of a DNA requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it; what is required is a description of the DNA itself." Id. at 1170, 25 USPQ2d at 1606.

The name cDNA is not itself a written description of that DNA; it conveys no distinguishing information concerning its identity. While the example provides a process for obtaining human insulin-encoding cDNA, there is no further information in the patent pertaining to that cDNA's relevant structural or physical characteristics; in other words, it thus does not describe human insulin cDNA. Describing a method of preparing a cDNA or even describing the protein that the cDNA encodes, as the example does, does not necessarily describe the cDNA itself. No sequence information indicating which nucleotides constitute human cDNA appears in the patent, as appears for rat cDNA in Example 5 of the patent.

Accordingly, the specification does not provide a written description of the invention of claim 5.

Therefore, none of the sequences encompassed by the claim meets the written description provision of 35 USC 112, first paragraph. The species specifically disclosed are not representative of the genus because the genus is highly variant. Applicant is reminded that Vas-Cath makes clear that the written description provision of 35 USC 112 is severable from its enablement provision. (See page 1115.)

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by BREDT *et al.* (A) BREDT teaches an oligonucleotide comprising a contiguous stretch of 21 bases with 100% identity to SEQ ID NO. 9 (see alignment), thereby anticipating claim 1.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by NCI-CGAP, EST Accession number AI797618. (B)

The NCI-CGAP teaches an oligonucleotide comprising a contiguous stretch of 21 bases with 100% identity to SEQ ID NO. 9 (see alignment), thereby anticipating claim 1.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by ZHAO *et al.*

(C)

ZHAO teaches an oligonucleotide comprising a contiguous stretch of 85 bases with 100% identity to SEQ ID NO. 10 (see alignment), thereby anticipating claims 1 and 3.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by WATERSTON.

(P)

WATERSTON teaches an oligonucleotide comprising a contiguous stretch of 389 bases with 100% identity to SEQ ID NO. 11 (see alignment), thereby anticipating claims 1 and 3. WATERSTON also teaches that his DNA is human in origin and that all regions sequenced are double-stranded (p. 2, Notice), therefore the complement to WATERSTON's 389 bases is inherently taught. As WATERSTON's sequence is 95.6% identical to SEQ ID NO. 11, the complement of WATERSTON's sequence is inherently 95.6% complementary to SEQ ID NO. 11, and would therefore hybridize to SEQ ID NO. 11 under stringent conditions, therefore claim 2 is also anticipated.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by NCI-CGAP Accession no. AW241926.(O)

The NCI-CGAP teaches an oligonucleotide comprising contiguous stretches of 69, 67, and 43 bases with 100% identity to SEQ ID NO. 11 (see alignment), thereby anticipating claims 1 and 3. The sequence taught by NCI-CGAP is a human cDNA, is the complement to SEQ ID NO. 11, and shows 98.9% identity to SEQ ID NO. 11 over 40% of its length, and would therefore hybridize to SEQ ID NO. 11 under stringent conditions. For these reasons, claim 2 is also anticipated.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by each of PEARCE (E) and HILLIER *et al.* (D)

PEARCE and HILLIER independently teach oligonucleotides comprising contiguous stretches of 35 bases with 100% identity to SEQ ID NO. 12 (see alignments), thereby anticipating claim 1.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by GRAY *et al.* (F)

GRAY teaches an oligonucleotide comprising a contiguous stretch of 19 bases with 100% identity to SEQ ID NO. 13 (see alignments), thereby anticipating claim 1.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by FENG *et al.* (G)

FENG teaches an oligonucleotide comprising a contiguous stretch of 21 bases with 100% identity to SEQ ID NO. 13 (see alignment), thereby anticipating claim 1.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by ZHAO *et al.* (H)

ZHAO teaches an oligonucleotide comprising a contiguous stretch of 20 bases with 100% identity to SEQ ID NO. 14 (see alignment), thereby anticipating claim 1.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by NCI-CGAP Accession no. AI47895. (N)

The NCI-CGAP teaches an oligonucleotide comprising a contiguous stretch of 122 bases with 100% identity to SEQ ID NO. 15 (see alignment), thereby anticipating claims 1 and 3. The NCI-CGAP also teaches that the oligonucleotide is a human double-stranded cDNA, therefore the complement to NCI-CGAP's 122 bases is inherently taught. As NCI-CGAP's sequence is 81.9% identical to SEQ ID NO. 15, the complement of WATERSTON's sequence is inherently 81.9% complementary to SEQ ID NO. 15, and would therefore hybridize to SEQ ID NO. 15 under stringent conditions. For these reasons, claim 2 is also anticipated.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by each of HOOF *et al.* (I), CHU *et al.* (J), and SAHA *et al.* (K)

HOOF, CHU, and SAHA independently teach oligonucleotides comprising contiguous stretches of 29 bases with 100% identity to SEQ ID NO. 16 (see alignments), thereby anticipating claim 1.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by LENNARD. (L)

LENNARD teaches an oligonucleotide comprising a contiguous stretch of 19 bases with 100% identity to SEQ ID NO. 17 (see alignments), thereby anticipating claim 1.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by EMMENEGGER *et al*. (M)

EMMENEGGER teaches an oligonucleotide comprising a contiguous stretch of 20 bases with 100% identity to SEQ ID NO. 18 (see alignments), thereby anticipating claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of NCI-CGAP Accession no. AW241926 (O) or NCI-CGAP Accession no. AI147895 (N) in view of SAMBROOK *et al.* (Q)

Applicant claims a method of producing a polynucleotide comprising obtaining a template encoding a sequence which hybridized to any of SEQ ID NO's 9-18, combining template with another oligonucleotide sequence comprising 14-80 contiguous bases of any of SEQ ID NO's 9-18, hybridizing the contiguous sequence to the template in the presence of dNTP's and DAN polymerase such that a polynucleotide of at least 50 bases matching any of SEQ ID NO's 9-18 results. Claims 6 and 8 limit the template to mammalian, specifically human, cDNA.

SAMBROOK teaches PCR amplification wherein a primer is hybridized to a template, and in the presence of dNTP's and DNA polymerase, a desired sequence (complementary to the

template) is produced (pp. 14.2-14.17). SAMBROOK does not teach SEQ ID NO's 9-18 for use as primers or templates.

Both NCI-CGAP (N and O) teach human cDNA's comprising at least 67 contiguous bases identical to SEQ ID NO's 11 and 15.

It would have been obvious to one of ordinary skill in the art at the time of invention to have used the sequences taught by NCI-CGAP (N or O) as either primers or templates, or both, in the PCR amplification method of SAMBROOK where the motivation would have been to generate probes, libraries, large amounts of the specific sequences for sequencing, etc., as taught by SAMBROOK (p. 14.5) No criticality or unexpected result has been shown for PCR amplification of the particular sequences recited in the claims. One skilled in the art would reasonably have expected success in using the sequences taught by NCI-CGAP (N or O) in a PCR amplification method because NCI-CGAP (O) teaches that cDNA's such as the sequence taught can be PCR amplified (p. 2).

Claims 5, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over SAMBROOK *et al.* (Q) in view of WATERSTON. (P)

Applicant claims a method of producing a polynucleotide of at least 50 bases matching any of SEQ ID NO's 9-18 by PCR amplification, as set forth above. Claims 7 and 9 limit the template to mammalian, specifically human, genomic DNA.

SAMBROOK teaches PCR amplification wherein a primer is hybridized to a template, and in the presence of dNTP's and DNA polymerase, a desired sequence (complementary to the template) is produced (pp. 14.2-14.17). SAMBROOK does not teach SEQ ID NO's 9-18 for use as primers or templates.

WATERSTON teaches a chromosomal (genomic) DNA comprising 389 contiguous bases identical to SEQ ID NO. 11, as set forth above.

It would have been obvious to one of ordinary skill in the art at the time of invention to have used the sequence taught by WATERSTON as either a primers or a template, or both, in the PCR amplification method of SAMBROOK where the motivation would have been to generate probes, libraries, large amounts of the specific sequences for sequencing, etc., as taught by SAMBROOK (p. 14.5) No criticality or unexpected result has been shown for PCR amplification of the particular sequences recited in the claims. One skilled in the art would reasonably have expected success in using the sequence taught by WATERSTON in a PCR amplification method because SAMBROOK teaches that genomic sequences can be PCR amplified (p. 14.16).

Conclusion

Claims 1-9 are rejected; claim 4 appears to be free of the prior art.

Papers relating to this application may be submitted to Technology Center 1600 by facsimile transmission. The number of the fax machine for official papers in Technology Center

1600 is (703) 308-4556. Any document submitted by facsimile transmission will be considered an official communication unless the cover sheet clearly indicates that it is an informal communication. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marjorie Moran whose telephone number is (703) 305-2363. The examiner can normally be reached on Monday through Friday from 7:30 a.m. to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, a supervisory examiner, Michael Woodward, can be reached at (703) 308-4028. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technical Center 1600 receptionist whose telephone number is (703) 308-1235.

Marjorie A. Moran
Patent Examiner
Art Unit 1631

ARDIN H. MARSCHEL
PRIMARY EXAMINER